IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:	)	Conf. No.: 9253
	)	
Geywitz et al.	)	
	)	
Application No.: 10/588,651	)	Group Art Unit: 3655
	)	
Filed: August 7, 2006	)	Examiner: LEWIS
	)	
For: Method for controlling the engine of a	)	
motor vehicle having a manual	)	
transmission	)	

Honorable Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Sir:

This is an appeal from the final rejection mailed May 23, 2011.

The fee set forth in 37 C.F.R. § 41.20(b)(2) is paid by credit card. Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account 14.1437. Please credit any excess fees to such account.

REAL PARTY IN INTEREST:

The real party in interest is Audi AG of Ingolstadt, Germany.

RELATED APPEALS AND INTERFERENCES:

To the best of the undersigned's knowledge, there are no related interferences or judicial proceedings.

STATUS OF CLAIMS:

- Claims 5 – 7 and 15 – 20 are allowed.
- Claims 1 – 20 are pending in the application.
- No claims are canceled.
- No claims are withdrawn.
- No claims are subject to restriction and/or election requirement.
- Claims 1, 8 – 10, 13, and 14 are rejected.
- No claim objections are pending.
- Claims 1, 8 – 10, 13, and 14 are being appealed.

STATUS OF AMENDMENT:

No amendment to the claims or to the specification was filed subsequent to the final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER:

Since claim 15 has been allowed, the only independent claim involved in this appeal is claim 1. Claim 1 relates to a method for controlling an engine of a motor vehicle having a manual transmission, the method comprising, when at least one approval criterion is satisfied for an engine torque which is dependent on the driving state of the vehicle, stipulating a default engine torque which can be reduced relative to a setpoint engine torque required by the position of an accelerator of the vehicle, and wherein the default engine torque is determined as a function of at least one current engine characteristic (see: paragraph page 1, second to last line to page 2, line 19).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL:

Whether the Office action erred in rejecting:

I.   claims 1, 10, and 14, citing 35 U.S.C. §102(b) and FR 2785238;

II.   claims 1, 8 – 10, and 14, citing 35 U.S.C. §103(a), US 6,258,008 to Tabata et al. (hereinafter, "Tabata") and US 6,000,376 to Hess et al. (hereinafter, "Hess"); and

III. claim 13, citing 35 U.S.C. §103(a), Tabata, Hess, and US 6,742,498 to Mabuchi et al. (hereinafter, "Mabuchi").

ARGUMENT:

I.   The rejection of claims 1, 10, and 14, citing 35 U.S.C. §102(b) and FR 2785238 is in error and should be reversed.

Claim 1 requires the approval criterion to be a function of engine torque. The FR reference teaches employing predetermined torque limits when the engine is starting (paragraph [0010]) and when the clutch is in a skating condition (paragraph [0013]). Therefore, the FR reference does not require approval criteria to be a function of engine torque. Claim 1 also requires the default engine torque to be determined as a function of at least one current engine characteristic. The FR reference sets fixed limit values for torque based on a mode selection.

In response, the Office action asserts,

> the torques 4, 6, 7 is [sic] determined as a function of the predetermined torque 2a because these torques are limited under the torque 2a, so without knowing what the torque 2a is, the control unit wouldn't know the amount of reduction needed for the torques 4, 6, 7, also torque 2a is a current engine characteristic because this torque is considered to be the torque which is occurring when the torques 4, 6, 7 are not used. OA at pages 2 – 3.

This assertion seems to demonstrate that the rejection is being maintained based on a misunderstanding of what it means for one variable to be a function of another variable. It is very respectfully submitted that in mathematics a function is a variable so related to another that for each value assumed by one there is a value determined for the other. In order for torques 4, 6, and 7 to be a function of torque 2a, they would need to be

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determined by torque 2a. They are not. Torques 4, 6, and 7 are predefined and their values are not determined based on torque 2a.

The Advisory Action mailed August 05, 2011 asserts, "[t]he limitation recites [*sic*] in claim 1 that the default engine torque is determined 'as a function of' at least one current engine characteristic, not that it is determined by at least one current engine characteristic." First, it is ironic that this assertion, which makes reference to the claim language, entirely fails to consider the claim language. Again, claim 1 requires the default engine torque to be determined as a function of at least one current engine characteristic. Second, this assertion perpetuates the misunderstanding of what it means for one variable to be a function of another variable. Again, in mathematics a function is a variable so related to another that for each value assumed by one there is a value determined for the other. The rejection should be reversed.

II.   The rejection of claim 1, 8 – 10, and 14, citing 35 U.S.C. §103(a), Tabata, and Hess et al. is in error and should be reversed.

Tabata doesn't disclose the method for reducing the engine torque as claimed. Hess does not provide any approval criterion. According to Hess operating variables can include a desired torque value, a signal representing a degree of actuation β, engine speed, engine load, and engine temperature (See column 2, lines 36 – 55). These operating variables are not approval criterion, because Hess's method proceeds regardless of what the operating variables happen to be. According to Hess, the operating variables are merely separated into a desired torque value for the charge path and a desired value for influencing the metering of fuel and/or the ignition angle. Therefore, according to Hess, nothing is contingent upon satisfying an approval criterion for an engine torque. Tabata, Yoshida, and Mabuchi are not cited to compensate for the above-discussed shortcomings of Hess.

The Advisory Action acknowledges, the operating variables in column 2, lines 36 – 55 of Hess are not approval criteria. The Advisory Action redirects all focus to column 1, lines 54 – 67 of Hess with respect to approval criteria. In short, the Advisory Action rests the entire rejection on whether column 1, lines 54 – 67 of Hess disclose approval criteria, but this portion of Hess does not disclose approval criteria:

The solution according to the invention is especially advantageous in operating states wherein the torque change especially the torque build-up, is already known in advance. This applies, for example, to a torque change: by the driver via pedal actuation, for interventions of a drive-slip controller or an engine drag torque controller, of a driving dynamic controller or like control system when loads are applied such as climate control, in the case of a start and/or during warm-running in combination with catalytic converter heating measures. In these operating states, the torque change is undertaken correctly dynamically by the separation of the torque desired value into a desired value for the charge path and a desired value for the rapid interventions which can assume different values.

The citation column 1, lines 54 – 67 of Hess adds nothing. This portion of Hess is merely a summary of Hess's invention. According to claim 1 of the present invention, the entire method is contingent on satisfaction of an approval criterion: "when at least one approval criterion is satisfied for an engine torque which is dependent on the driving state of the vehicle...." Hess's method proceeds regardless of what its operating variables happen to be. Therefore, Hess fails to teach a method contingent upon satisfaction of approval criterion. The rejection should be reversed.

III.   The rejection of claim 13, citing 35 U.S.C. §103(a), Tabata, Hess, and US 6,742,498 to Mabuchi et al. (hereinafter, "Mabuchi") is in error and should be reversed.

This rejection should be reversed because of the shortcomings of the combination of Tabata and Hess as already discussed.

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CLAIMS APPENDIX:

1. Method for controlling an engine of a motor vehicle having a manual transmission, the method comprising, when at least one approval criterion is satisfied for an engine torque which is dependent on the driving state of the vehicle, stipulating a default engine torque which can be reduced relative to a setpoint engine torque required by the position of an accelerator of the vehicle, and wherein the default engine torque is determined as a function of at least one current engine characteristic.

2. The method as claimed in claim 1, wherein the approval criterion is the driving speed of the vehicle, and wherein the default engine torque is stipulated depending on at least one current engine characteristic when a speed threshold for a driving speed of the vehicle is not reached.

3. The method as claimed in claim 2, wherein the default engine torque is stipulated only after recognition of a start-up process of the vehicle depending on at least one current engine characteristic .

4. The method as claimed in claim 2, wherein an additional approval criterion is a delay time after recognizing the process of the vehicle's starting up, and wherein the default engine torque after the delay time elapses is stipulated depending on at least one current engine characteristic .

5. Method for controlling the engine of a motor vehicle having a manual transmission, the method comprising, when at least one approval criterion is satisfied for an engine torque which is dependent on the driving state of the vehicle, stipulating a default engine torque which can be reduced relative to a setpoint engine torque required by the position of an accelerator of the vehicle, and wherein at least engine speed and a quotient of the engine speed and driving speed of the vehicle are used as engine characteristics for determining the default engine torque .

6. The method as claimed in claim 5, wherein the default engine torque which

causes speed limitation of the engine speed , is reduced relative to the setpoint engine torque when the engine speed exceeds a speed threshold and the quotient of the engine speed and driving speed of the vehicle is within a specific value range.

7. The method as claimed in claim 6, wherein a value of 4600 rpm is stipulated as the speed threshold for the engine speed .

8. The method as claimed in claim 1, wherein the default engine torque is determined by applying a torque factor to the setpoint engine torque .

9. The method as claimed in claim 8, wherein the torque factor is determined from a characteristic map.

10. The method as claimed in claim 1, wherein when the default engine torque deviates from the setpoint engine torque an action on at least one of a throttle valve, an ignition and a fuel injection of the vehicle is initiated.

11. The method as claimed in claim 2, wherein a value in the range from 25 km/h to 40 km/h is stipulated as the speed threshold for the driving speed of the vehicle.

12. The method as claimed in claim 11, wherein a value of 35 km/h is stipulated as the speed threshold for the driving speed of the vehicle.

13. The method as claimed in claim 1, wherein the default engine torque in idling of the vehicle is stipulated for acoustically influencing engine noise.

14. The method as claimed in claim 1, wherein the default engine torque in the process of the vehicle's starting up is stipulated for avoiding damage to a clutch of the vehicle.

15. A method comprising

measuring an engine speed and a driving speed of a motor vehicle having a manual transmission;

determining a torque factor based on the engine speed and the driving speed; and

determining a default torque by multiplying a setpoint torque by the torque factor, when the engine speed exceeds a predetermined threshold and when a quotient of the engine speed and the driving speed is within a predetermined range.

16.   The method according to claim 15, wherein the torque factor is less than or equal to 1.

17.   The method according to claim 15, wherein the method does not comprise recognizing whether a gear is engaged in the motor vehicle.

18.   The method according to claim 15, wherein the predetermined threshold is greater than or equal to 4600 rpm.

19.   The method according to claim 15, wherein the predetermined range is from 100 min^{-1}/km/h to 500 min^{-1}/km/h.

20.   The method according to claim 15, further comprising limiting the setpoint torque to the default torque after a time interval has elapsed after the vehicle is started.

EVIDENCE APPENDIX:

None.

RELATED PROCEEDINGS APPENDIX:

None.